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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/024,999	12/18/2001	Daniel Hoo	659/792	3560

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EXAMINER
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EDWARDS, LAURA ESTELLE

ART UNIT	PAPER NUMBER
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1734

DATE MAILED: 04/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/024,999	Applicant(s) HOO ET AL.	
	Examiner Laura E. Edwards	Art Unit 1734	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 20 February 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-30 is/are pending in the application.  
     4a) Of the above claim(s) 1-17 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 18-30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

***Election/Restrictions***

This application contains claims 1-17 drawn to an invention nonelected without traverse in the office mailed as of 1/24/03. These claims are withdrawn from consideration and therefore should be cancelled.

***Specification***

The disclosure is objected to because of the following informalities: on page 1 and any following pages, Applicants are requested to update the history of all noted patent applications. Please cite any and all applicable patent numbers corresponding to the disclosed application numbers.

Appropriate correction is required.

***Claim Objections***

Claim 29 and 30 are objected to because of the following informalities: in claims 29 and 30, both lines 2, "a water-dispersible binder" should be changed to --the water-dispersible binder--. Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

Claims 17-30 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, Applicants recite a substrate in the preamble but fail to clarify that the web is the substrate in the body of the claim.

***Claim Rejections - 35 USC § 102***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 18, 22, 25, 26, 28, 29, and 30 are rejected under 35 U.S.C. 102(b) as being anticipated by Gordon et al (US 5,763,332).

Gordon et al teach an apparatus for treating or wetting a substrate comprising a source of the substrate (112), the substrate including a hydrophobic web comprising a water-dispersible binder (see col. 6, lines 55+ to col. 7, lines 1-21 and col. 10, lines 6-57), a pair of press rolls (130, 134), and a solution applicator (not shown, see col. 20, lines 27-30) which delivers an aqueous wetting solution (see col. 11, lines 62-65 and col. 14, lines 1-2) to the web, the web passing between the rolls can absorb the solution resulting with at least a 25% add-on (see col. 21, lines 63-65).

With respect to claim 25, see small press rolls (138, 146) and larger press rolls (142,150).

With respect to claims 29 and 30, see col. 19, lines 25-30.

***Claim Rejections - 35 USC § 103***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gordon et al (US 5,763,332) in view of Bolton et al (US 4,447,924).

Gordon et al teach an apparatus for treating or wetting a substrate or web as mentioned above and further recognize the use of pumping or spraying means (not shown; see col. 20, lines 27-28) for supplying the wetting solution or emulsion to the web. Gordon et al fail to teach or suggest the use of a spray boom or drool bar. However, it was known in the art, at the time the invention was made to use a spray boom or drool bar to wet a web as evidenced by Bolton et al (see col. 4, lines 9-11). It would have been obvious to one of ordinary skill in the art to provide the spray boom or drool bar as taught by Bolton et al in the apparatus of Gordon et al as a means to supply emulsion to the web along the length of the press rolls.

Claims 21 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gordon et al (US 5,763,332) in view of Bafford et al (US 5,089,296).

Gordon et al teach an apparatus for treating or wetting a substrate or web as mentioned above and further recognize the use of pumping or spraying means (not shown; see col. 20, lines 27-28) for supplying the wetting solution or emulsion to the web. Gordon et al fail to teach or suggest the use of a distribution header. However, it was known in the art, at the time the invention was made to provide a distribution header or die slot to supply wetting solution or emulsion to a web as evidenced by Bafford et al (see col. 4, lines 65-68). Therefore, it would have been obvious to one of ordinary skill in the art to provide the die slot as taught by Bafford et al in the apparatus of Gordon et al as a means to supply emulsion to the web.

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With respect to claim 27, Gordon et al fail to teach or suggest delivering the wetting solution or emulsion directly to the web. However, it was known in the art, at the time the invention was made, to directly supply a wetting solution or emulsion to a web disposed in a nip so as to enable collapse of the emulsion and rapid absorbance of the emulsion into the web as evidenced by Bafford et al (see col. 4, lines 27-31; col. 6, lines 55-59; and col. 7, lines 27-34). In view of the teachings of Bafford et al, it would have been obvious to one of ordinary skill in the art to directly supply wetting solution or emulsion to the web disposed in the nip between the two press rolls in the apparatus of Gordon et al in order to enable collapse or breakdown of the emulsion and rapid absorbance of the emulsion into the web.

Claims 23 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gordon et al (US 5,763,332).

Gordon et al teach an apparatus for treating or wetting a substrate as mentioned above. Gordon et al fail to teach or suggest the press rolls being separated a distance of 0.01 to 1.0mm. However, Gordon et al do recognize controlling the amount of solution or emulsion applied to the web by adjusting the width of the nip areas between respective press rolls (see col. 20, lines 44-52). Therefore, it would have been obvious to one of ordinary skill in the art to appropriately set the nip width between the press rolls so as control the amount of solution or emulsion applied to the web. The exact distancing between the press rolls would be determined via routine experimentation.

With respect to claim 24, Gordon et al are silent concerning characteristics of the nip rolls including a covering of desired hardness. However, it would have been obvious to one of

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ordinary skill in the art to provide a covering of desired characteristics so as to meter a desired amount of solution or emulsion from the treated web.

### *Conclusion*


The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following patent discloses the state of the art with respect to treated web products including hydrophobic webs (see col. 33, lines 45-52), the method of making the products, and the apparatus for use therewith: Caldwell (US 5,874,164).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura E. Edwards whose telephone number is (571) 272-1227. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (571) 272-1226. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Laura E. Edwards  
Primary Examiner  
Art Unit 1734

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April 28, 2004